UNITED STATES PATENT AND TRADEMARK OFFICE

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10/532,738	04/26/2005	Marcus Burgcl	2002P16717WOUS	9005

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
	10/532,738	BURGEL ET AL.
Office Action Summary	Examiner	Art Unit	
	Joseph D. Wong	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _16 April 2007_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _8-24_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _8-24_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claims 8-24 are amended.

Response to Arguments

Arguments with respect to the 35 USC 101 rejections are not persuasive. With respect to

claims 8-24, the amendments are directed to data exchange in the abstract because the elements

need not exist in the real world and thereby raising doubt that the exchange happens in the real

world. The amendment is directed to software and thus the system claims of 8-20 are interpreted

as being software per se because no physical article is present within the system of claim 8.

Accordingly nonstatutory subject matter rejections for claims 8-24 are maintained.

Applicant's argument that claims 8, 21 and 23 have "an ability to perform a data

exchange between a plurality of distinct software applications" are noted. However, since the

argued exchange merely an ability not positively recited, it raises doubt as to whether there is a

result because the exchange need not occur.

Applicant's arguments with respect to claim 8 have been considered but are moot in view

of the new ground(s) of rejection.

In response to applicant's argument that the reference of Williams fail to show certain

features of applicant's invention, it is noted that the features upon which applicant relies (i.e.,

"not in a relational database") are not recited in the rejected claims. Although the claims are

interpreted in light of the specification, limitations from the specification are not read into the

claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The remainder of Applicant's arguments amount to a general allegation that the claims

define a patentable invention without specifically pointing out how the language of the claims

patentably distinguishes them from the references.

Applicant's arguments filed 16 April 2007 have been fully considered but they are not

persuasive. Nonstatutory subject matter rejections are clarified and maintained when appropriate

while prior art rejections are substituted with new grounds of rejections as necessitated by

amendment.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

Claims 8-24 rejected for being directed towards nonstatutory subject matter.

Claim 8 is directed to a system consisting of software per se because no physical article is

observed within the body of the claims. Software per se is not one of the four categories of

invention and therefore claims 9-19 are not statutory. Software per se is not a series of steps or

acts and thus is not a process. Software per se is not a physical article or object and as such is

not a machine or manufacture. Software per se is not a combination of substances and therefore

is not a composition of matter. This clarification to the rejection was necessitated by Applicant's

amendment. Claims 9-20 are rejected as depending from claim 8.

Claim 8 appears directed a system comprising abstract elements per se. This claimed

subject matter lacks a practical application of a judicial exception (abstract idea) since it fails to

produce a useful result. Specifically the claimed subject matter does not produce a tangible result.

The claimed subject matter does not positively recite a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather than a result that may be interpreted to be abstract in nature as, for example, a thought, a computation, or manipulated data. More specifically, the claimed subject matter provides for structuring, storing and processing of data.

Claim 8 is directed to a system comprised entirely of a collection of abstract elements. To be an actual data structure, it must be "a physical or logical relationship among data elements, designed to support specific data manipulation functions, " regardless of whether Applicant calls it a data structure or not. What applicant has claimed does not appear to meet the IEEE definition of a data structure because it does not appear designed for specific data manipulation functions. Specifically "structuring, storing, and processing of data in accordance with a generic object model" appears sufficiently general use due to applicant's failure to positively recite specific data manipulation functions. Claims 9-20 depend from claim 8 and are rejected for the same reason.

Claims 21 and 23 appear directed a method of abstract elements per se. This claimed subject matter lacks a practical application of a judicial exception (abstract idea) since it fails to produce a useful result. Specifically the claimed subject matter does not produce a tangible result.

The claimed subject matter does not positively recite a tangible result because the claimed subject matter fails to produce a result that is limited to having real world value rather

than a result that may be interpreted to be abstract in nature as, for example, a thought, a

computation, or manipulated data. More specifically, the claimed subject matter produces

nothing more than linked objects, which does not produce a tangible result. Claims 22 and 24

depend from claims 21 and 23 respectively and are rejected for the same reason.

Applicants can look to MPEP 2106.01-2106.02, 707.06 (August 2006), Interim

Guidelines, Instant Specification, and contemporary case law with a matching fact pattern for

further suggestions that may be helpful in overcoming these rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 8-9, 12-13, 15-17, 19-24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Williams, US Patent 6,591,272 B1, filed 22 Feb. 2000 in view of Cheyer

et al., US Patent 6,859,931 B1, filed 17 Mar 1999, hereinafter Cheyer.

Regarding claim 8, Williams teaches system for structuring (interpreted to include

"ORGANIZATION", Col. 91, Lines 55), storing (interpreted to include "inserts", Col. 60, Lines

40-45) and processing of data in accordance with a generic object model (Fig. 5), wherein the

object model has at least one first element which corresponds to a type object (Fig. 4), wherein

the type object (Fig. 4-5) comprises the following attributes (Fig. 14): a unique identification of

an object of the type Object for absolute referencing of the object (interpreted to include "CustomerID", Fig. 14), a logical name for labeling the object (interpreted to include "Base Object Name", Fig. 14), and at least one link to a second element (interpreted to include "SalesPersonID", Fig. 14), which corresponds to a type Feature (interpreted to include "Employee_ID", Fig. 15), wherein the type Feature comprises the following attributes: a unique name in relation to the object (interpreted to include "Base Object Name", Fig. 15), and the option of linkage to further components of the type Object (interpreted to include "ManagerID", Fig. 15), to further components of the type Feature (interpreted to include "Employee_ID, Fig. 15), and to data (interpreted to include "LAST_NAME", Fig. 15).

Williams does not explicitly teach an object-based system for structuring, storing, and processing of data from a plurality of distinct software applications, said data comprising hierarchically structured data set objects stored in at least one object database, said data subject to one or more incompatible data exchange structures in the plurality of distinct software applications, said data to be changed between the plurality of distinct software applications in accordance with a generic object model.

However, Cheyer teaches an object-based (Title) system for structuring, storing, and processing of data from a plurality of distinct software applications (Fig. 3, items 310, 320), said data comprising hierarchically structured data set objects stored in at least one object database (Fig. 7, items 704, 706, 720), said data subject to one or more incompatible data exchange structures (interpreted to include "protocol incompatible with the ICL by one of the components", Claim 11) in the plurality of distinct software applications (Fig. 3, items 310, 320),

said data to be changed between the plurality of distinct software applications in accordance with

a generic object model. (Col. 22, Lines 44-65; Col. 23, Lines 1-15)

Williams and Cheyer are analogous art pertinent to the problem to be solved. A skilled

artisan would have been motivated to extend the teachings of Williams with Cheyer because it

greatly expands the flexibility and capabilities of the distributed agent community as discussed in

the abstract of Cheyer.

Therefore at the time of invention, it would have been obvious to a person having

ordinary skill in the art to combine the teachings of Williams with Cheyer because it greatly

expands the flexibility and capabilities of the distributed agent community as suggested in the

abstract of Cheyer.

Regarding claim 9, Williams teaches the system in accordance, wherein the type Object

has as further attributes an identification of the object type (Fig. 14) and an identification of the

version of the object. (Col. 10, Lines 44-45)

Regarding claim 12, Williams teaches the system in accordance, wherein the elements of

the object are linked by references. (Col. 11, Line 45; Col. 26, Line 20)

Regarding claim 13, Williams teaches the system in accordance, wherein the elements of

the object are linked by references. (Col. 11, Line 45; Col. 53, Lines 5-15)

Regarding claim 15, Williams teaches the system in accordance, wherein the object

model is described by an extensible markup language. (interpreted to include "XML", Col. 9,

Lines 22-23)

Regarding claim 16, Williams teaches the system in accordance, wherein the object

model is described by an extensible markup language. (interpreted to include "XML", Col. 9,

Lines 22-23)

Regarding claim 17, Williams teaches the system in accordance, wherein the object

model is described by an extensible markup language. (interpreted to include "XML", Col. 9,

Lines 22-23)

Regarding claim 19, Williams teaches the system in accordance, wherein the object

model is described by an extensible markup language. (interpreted to include "XML", Col. 9,

Lines 22-23)

Regarding claim 20, Williams teaches the system in accordance with claim 8, wherein the

system is part of an engineering system of an automation system. (Col. 9, Lines 23-24, Lines 37-

38; Col. 12, Lines 43-45)

Regarding claim 21, Williams teaches a method for structuring (interpreted to include

"ORGANIZATION", Col. 91, Lines 55), storing (interpreted to include "inserts", Col. 60, Lines

40-45) and processing data in accordance with a generic object model (Fig. 5), wherein the

object model has at least one first element corresponding to the type Object (Fig. 4-5), wherein

the type Object (Fig. 4-5) comprises the following attributes (Fig. 14): a unique identification of

an object of the type Object for absolute referencing (interpreted to include the "primary key",

Col. 12, Line 58) of the object (interpreted to include "CustomerID", Fig. 14), a logical name for

labeling the object (interpreted to include "Base Object Name", Fig. 14), and at least one link to

a second element (interpreted to include "SalesPersonID", Fig. 14), which corresponds to a type

Feature (interpreted to include "Employee_ID", Fig. 15), the method comprising: assigning a

unique identification (interpreted to include "Employee_ID", Fig. 15) to an instance of the type

Object for absolute referencing the instance (interpreted to include "Base Object Name", Fig.

15); assigning a logical name for labeling the instance (interpreted to include "BaseObject", Col.

53, Line 30); and linking the instance to the second element (interpreted to include

"DEPARTMENT_ID", Col. 60, Lines 50-55), wherein the type Feature comprising the

following attributes: a unique name in relation to the relevant linked object referenced, and the

option of linkage to further components of the type Object (interpreted to include "JOB_ID",

Col. 60, Lines 55-60), to further components of the type Feature (interpreted to include

"LOCATION_ID", Col. 60, Lines 50-65), and to data (interpreted to include "HIRE_DATE",

Col. 60, Lines 50-65).

Williams does not explicitly teach an object-based system for structuring, storing, and

processing of data from a plurality of distinct software applications, said data comprising

hierarchically structured data set objects stored in at least one object database, said data subject

to one or more incompatible data exchange structures in the plurality of distinct software

applications, said data to be changed between the plurality of distinct software applications in

accordance with a generic object model.

However, Cheyer teaches an object-based (Title) system for structuring, storing, and

processing of data from a plurality of distinct software applications (Fig. 3, items 310, 320), said

data comprising hierarchically structured data set objects stored in at least one object database

(Fig. 7, items 704, 706, 720), said data subject to one or more incompatible data exchange

structures (interpreted to include "protocol incompatible with the ICL by one of the

components", Claim 11) in the plurality of distinct software applications (Fig. 3, items 310, 320),

said data to be changed between the plurality of distinct software applications in accordance with

a generic object model. (Col. 22, Lines 44-65; Col. 23, Lines 1-15)

Regarding claim 22, Williams teaches the method in accordance, wherein the data are

structured (Col. 91, Lines 55), stored (Col. 60, Lines 40-45), and processed for engineering an

automation system. (Col. 9, Lines 23-24, Lines 37-38; Col. 12, Lines 43-45)

Regarding claim 23, Williams teaches a method for structuring, storing and processing of

data in accordance with a generic object model (Fig. 5), wherein the object model has at least

one first element which corresponds to the type Object (Fig. 4-5), the method comprising:

providing a unique identification of an object of the type Object for absolute referencing

(interpreted to include the "primary key", Col. 12, Line 58) of the object (interpreted to include

"CustomerID", Fig. 14); providing a logical name for labeling the object (interpreted to include

"Base Object Name", Fig. 14); and linking the object to a second element (interpreted to include

"SalesPersonID", Fig. 14), which corresponds to a type Feature (interpreted to include

"Employee_ID", Fig. 15), wherein the type Feature (interpreted to include "Employee_ID", Fig.

15) comprising: a unique name in relation to the linked object (interpreted to include "Base

Object Name", Fig. 15), and the option of linkage to further components of type Object

(interpreted to include "JOB_ID", Col. 60, Lines 55-60), to further components of type Feature

(interpreted to include "LOCATION_ID", Col. 60, Lines 50-65) and to data (interpreted to

include "HIRE_DATE", Col. 60, Lines 50-65).

Williams does not explicitly teach an object-based system for structuring, storing, and

processing of data from a plurality of distinct software applications, said data comprising

hierarchically structured data set objects stored in at least one object database, said data subject

to one or more incompatible data exchange structures in the plurality of distinct software

applications, said data to be changed between the plurality of distinct software applications in

accordance with a generic object model.

However, Cheyer teaches an object-based (Title) system for structuring, storing, and

processing of data from a plurality of distinct software applications (Fig. 3, items 310, 320), said

data comprising hierarchically structured data set objects stored in at least one object database

(Fig. 7, items 704, 706, 720), said data subject to one or more incompatible data exchange

structures (interpreted to include "protocol incompatible with the ICL by one of the

components", Claim 11) in the plurality of distinct software applications (Fig. 3, items 310, 320),

said data to be changed between the plurality of distinct software applications in accordance with

a generic object model. (Col. 22, Lines 44-65; Col. 23, Lines 1-15)

Regarding claim 24, Williams teaches the method in accordance, wherein the data are

structured (Col. 91, Lines 55), stored (Col. 60, Lines 40-45), and processed (Fig. 3, item 34) for

engineering an automation system. (Col. 9, Lines 23-24, Lines 37-38; Col. 12, Lines 43-45)

Claims 10, 11, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Williams, US Patent 6,591,272 B1, filed 22 Feb. 2000 in view of Pace et al., US Patent

7,181,731 B2, filed 4 Sep 2001, hereinafter Pace in further view of Devarakonda et al., US

Pre-Grant Pub. No/ 2003/0225801 A1, filed 31 May 2002, hereinafter Devarakonda.

Regarding claims 10 and 11, Williams teaches the system in accordance, wherein

elements linked by an element of type Feature. Williams does not explicitly teach form a logical

subset of all elements of an object. However, Devarakonda teaches form a logical subset of all

elements of an object. [0035] Williams and Devarakonda are analogous art. A skilled artisan

would have been motivated to adapt the data structure..."with requirements for storing data" as

discussed in the abstract of Devarakonda. Therefore at the time of invention, it would have been

obvious to a person having ordinary skill in the art to combine the teachings of Williams and

Devarakonda to adapt the data structure with requirements for storing data as suggested in the

abstract of Devarakonda.

Regarding claim 14, Williams teaches the system in accordance, wherein the elements of

the object are linked by references. (Col. 11, Line 45; Col. 52, Lines 62-67; Col. 53, Lines 5-15)

See remarks under claim 10.

Regarding claim 18, Williams teaches the system in accordance, wherein the object

model is described by an extensible markup language. (interpreted to include "XML", Col. 9,

Lines 22-23)

Conclusion

Applicant's amendment necessitated the new grounds of rejection presented in this Office

action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

will the statutory period for reply expire later than SIX MONTHS from the date of this final

action.

If applicant still believes there is patentable subject matter within the disclosure and has

reasons why those differences define over the prior art, then applicant can look to MPEP § 324

IV (August 2006) and 37 CFR 1.114 for additional suggestions that may be helpful for

overcoming the finality of this office action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Joseph D. Wong whose telephone number is 571-270-1015. The

examiner can normally be reached on Mon.-Thur. 8:30AM - 6:00PM and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Tim T. Vo can be reached on (571) 272-3642. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph D. Wong   Tim T. Vo
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24 May 2007

TIM VO
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